

The Primacy of Doctrine: The United States Army and Military Innovation and Reform, 1945-1995

by Michael Evans, Research Historian, Directorate of Army Research and Analysis

Army Occasional Paper No 1 - August 1996

19980203 050

Abstract

In the 1990s it is fashionable to speak of a 'Revolution in Military Affairs' being underway as a result of what is styled the Information Age. It may, however, be more useful and even more accurate, to see recent changes in warfare emanating from the impact of microprocessors and digitisation, as the latest phase in a dynamic process which can be traced to the coming of the nuclear age in 1945. Ever since the explosion of the atomic bomb, the military profession has been constantly challenged by both revolutionary technology and novel ideas about the nature of war. These technical and intellectual challenges have often forced military establishments to refine relevant operational concepts and develop realistic doctrine. This has often involved a difficult process of reform in which the needs of modernisation have had to be balanced against the requirement to maintain a consistent professional knowledge of war. Nowhere have these difficulties been more marked than in the United States, the world's pre-eminent military power.

The purpose of this essay is to explore how a military organisation responds to an era of innovation in warfare, how it meets new challenges and how successfully it can absorb the requirements of constant change. It takes as its main argument the proposition advanced by the leading American military historian, Peter Paret, that 'the most important problem of [military] innovation [is] not the development of new weapons or methods, nor even their general adoption, but their intellectual mastery'.^[1] It argues that such intellectual mastery can only be conferred by doctrinal analysis. Weapons technology and strategy must be informed by doctrine - that is knowledge of how to fight - based on an understanding of operational philosophy. The development of effective doctrine for the employment of technology and the execution of strategy is one of the most challenging aspects of military professionalism.^[2]

It is in the process of discerning operational requirements that the real conceptual difficulties of military thought occur. This process demands of soldiers that they understand not just the dynamics of their profession, but the social and political context in which it must operate. Referring to the problem of innovation and doctrine, the distinguished British military historian, Michael Howard, has argued that what matters in doctrine development is not so much accuracy in detail, or success in forecasting events, but the strength of the intellectual process itself. The real value of doctrine lies in its creation of a framework of thinking which is capable of flexible action in time of war.^[3]

This paper uses the experience of the United States Army between 1945 and 1995 to try to demonstrate the intellectual process of doctrine and its relationship to innovation in technology and strategy. This is a long period to cover and any survey risks omissions and distortions; but such an approach does have the advantage of allowing the use of a methodology of comparative analysis of doctrine over time. This study is designed as an overview; it is a snapshot of developments in the history of American military ideas, rather than a detailed assessment or exhaustive examination of American Army history as a whole. Such an approach is necessarily selective, with issues identified and examined insofar as they impacted on the Army's conceptualisation of war. Some decades - the 1950s, the 1970s and 1980s for instance - are covered in more detail than others because the main focus is on how the United States Army experimented with, or discovered, the institutional value of doctrine.

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

The essay argues that between 1945 and 1995, the United States Army endured a series of profound changes - due mainly to the impact of technology and shifting strategic ideas. In combination, these pressures forced dramatic shifts in the Army's operational focus between nuclear, conventional and unconventional warfare. From the late 1950s to the early 1970s in particular, the American Army was often gripped by institutional uncertainty caused by new weapons systems and complex new theories of strategy for which there seemed to be no historical precedents. In the 1950s and 1960s, the American Army attempted to integrate traditional concepts of war based on firepower, mass and technological supremacy into a new military environment. This led to turbulence in doctrinal development, and to difficulties in operational planning and performance. These flaws were exposed during America's conduct of war in Vietnam.

After Vietnam, the United States Army in an endeavour to reform itself, returned to the roots of professional knowledge based on developing doctrine. In an effort to restore operational efficiency, the United States Army became a 'doctrinal army'. As an institution it moved towards a more holistic and precise approach to combat, and sought an understanding of the variables and constants of the American way of war by blending insights from the past with the emerging technology of a future battlefield. From the late 1970s and, throughout the 1980s, the United States Army used the intellectual power of ideas to isolate its weaknesses, to identify its strengths and to determine the parameters of reform. The result was a renewed army, guided by a historically-validated doctrine, a doctrine which although developed primarily for war in Europe, brought victory in the deserts of the Persian Gulf.

In the mid-1990s, the United States Army has reaffirmed the primacy of doctrine as a means of preparing for war in the twenty first century. This essay postulates that the experience of the American Army from the 1940s into the 1990s is a useful case study in a process of military innovation and reform for a number of reasons. First, it demonstrates the essential need for the cultivation of intellectual strength in a modern officer corps. Second, it reinforces the requirement for a professional military organisation to rigorously analyse the theory of war in the light of both history and technological advance. Third, it is a testimony to the cleansing nature of self-generated military reform. In short, the United States example has much to teach other armies about how a military organisation should use doctrine to confront the rigours of constant change and how such a process can be used to balance both power and precision in operations.

The United States Army and the Nuclear Revolution, 1945-61

Prior to 1945, in the American military tradition, the United States Army had been the nation's primary fighting force. But the development of an American nuclear arsenal after 1945 and the coming of the Cold War challenged the Army's historic role. Its status was threatened by an atmosphere of widespread doubt in American political circles about the utility of traditional land forces in the atomic age. As Russell F. Weigley, the leading historian of the United States Army has observed, 'the atomic explosions at Hiroshima and Nagasaki ended Clausewitz's "the use of combats" as a viable inclusive definition of strategy'.^[4] Before examining how the Army reacted doctrinally to conditions of dramatic change, it is necessary to briefly outline the parameters of the transformation of warfare brought about by the introduction of atomic weapons. In the words of a leading soldier, Lieutenant General James M. Gavin, land operations were confronted by 'a technological revolution of the most profound nature'.^[5] This situation posed extraordinary doctrinal challenges to the American Army, challenges which lasted well into the 1960s.

Nuclear Weapons, Civilian Strategists and the Revolution in Warfare

Following the Soviet Union's development of an atomic capability in 1949, the 1950s began to unfold as an era of military revolution in the United States. Of all pre-Second World War military ideas, only the Douhetian doctrine of strategic air bombardment seemed relevant in the nuclear era.^[6] The concept of deterrence based on atomic air power was seen as having supplanted defence based on conventional armies. Bernard Brodie, perhaps the greatest strategist of the nuclear age, declared in 1946: 'Thus far the chief purposes of our [the United States] military establishment has been to win wars. From now on its chief purpose must be to avert them'.^[7] If war could not be averted or deterred, then it must be limited.

The development of deterrence was accompanied by the concept of limited war, in which conflict was viewed essentially as a diplomatic rather than a military instrument, a tool for bargaining with, rather than defeating, an enemy.[8]

In this atmosphere, the role of the armed services was challenged by a new breed of civilian defence specialists. Their training was not in military science, but in politics, economics, physics and mathematics. These disciplines seemed more relevant to the new age in warfare because the issues related more to political decision-making than to the employment of force along traditional lines.[9] The years between 1945 and 1965 saw the emergence of such outstanding thinkers as Brodie, Albert Wohlstetter, Thomas Schelling, Henry Kissinger, Robert Osgood, William Kaufmann and Herman Kahn. Between them they developed a strategic framework designed to manage the Cold War world based on theories of deterrence, arms control, escalation and limited war. Their tools included theoretical calculation, resource allocation and assessments of force structures based on systems analysis.[10]

Such an approach was a far cry from the traditional approach to war which balanced military operations against the vagaries of politics and success in battle against the unpredictability of human behaviour. The United States Army faced the intellectual problem that, 'the art of combat [had] lost its relevance when the aim was to deter and when any future war would be fought in such a radically different manner from those of the past'.[11] Of all the armed services, the Army was least prepared for the challenge of nuclear-age warfare. Some writers, notably Colonel Harry G. Summers, have blamed the influence of civilian nuclear-age strategy for the subsequent difficulties of the United States Army in the 1950s and 1960s. Summers observes harshly that 'through most of the nuclear era, doctrine was imposed on the Services from above: either the doctrine of nuclear apocalypse or the academic theory of limited war. The US failure in Vietnam can be traced to these inappropriate doctrinal concepts'.[12] This is an exaggerated assertion, but there is little doubt that the Army's position was very difficult in the first two decades of the nuclear age.

Both the United States Air Force (USAF) and United States Navy (USN) found it easier to find roles for themselves in the new age, largely because atomic weapons required delivery systems. The Air Force was able to adapt a Second World War ideology of air power based on heavy bombers to nuclear age conditions. The Navy was helped by the development of missile technology which, by the early 1960s, led to the development of the Polaris submarine launched ballistic missile fleet. In contrast, the Army was plunged into a crisis of institutional identity with a reduced budget, shrinking manpower ceilings and a loss of mission.

The Army's Institutional Crisis: The 'Strategy of Power' and the Rise of Massive Retaliation

Nuclear weapons did not immediately affect the structure and mission of the United States Army. Throughout the late 1940s, doctrine remained Second World War in orientation. It was based on head-on assault, aimed at annihilation of the enemy in a set-piece battle through the application of massive strength and firepower. Russell F. Weigley has defined this as the 'strategy of power', an American approach to warfare which had a long historical track record of success.[13] He states:

From the Civil War onward, the United States won its major wars mainly by overwhelming its enemies with a superior weight of numbers and resources. Superior strength flooded over the enemy's armed forces, eroding them through attrition and finally annihilating them. This was true of Grant against Lee, Pershing and his Allies against Ludendorff, Eisenhower against Hitler, and MacArthur against the Japanese. American soldiers became habituated to the advantages of wielding overwhelming power. The assurance of possessing greater resources than the enemy's encouraged the Army to adopt a strategy and even tactics of direct, head-on confrontation, to crush the enemy where he was strongest and thus to bring all his defenses tumbling down.[14]

But the inconclusive nature of the 1950-53 Korean War greatly affected American perceptions of the use of massive land force in this military equation. The Korean conflict, with its inconclusive fighting and high casualties for no outright victory, convinced many American policy-makers that relying on conventional land forces was expensive and misguided.[15] It was better to maximise atomic power, the new symbol of American military superiority. Thus Bernard Brodie's 1946 belief that, in the nuclear age

a nation maintained military forces not to fight wars but to deter them, gained widespread acceptance during the 1950s.

Under the presidency of Dwight D. Eisenhower, the United States moved towards deterrence through a strategy of massive retaliation based on the threat of using nuclear weapons. Although such an approach reflected a belief that nuclear weapons had made traditional concepts governing the use of land force outmoded, it was still consistent with the 'strategy of power' intrinsic to the American way of war. Massive retaliation had the practical effect of elevating the Air Force as the prime service supporting deterrence. It made the bombers of the Strategic Air Command, rather than the Army's tanks and artillery, the main instruments of warfare in the new atomic era.[16] The American Army's main mission was declared to be that of civil defence in the aftermath of a nuclear exchange. Shorn of its traditional combat role, the Army's force structure was dramatically reduced. Its strength fell from 1.5 million troops and 20 combat divisions in 1953 to 859,000 troops and 14 combat divisions in 1961.[17]

The Development of Army Nuclear Warfare Doctrine and the Pentomic Experiment

In the 1950s, the United States Army sought to recover a combat role through trying to integrate nuclear weapons with traditional notions of land warfare. Attempts to develop a doctrine for limited nuclear war had been advanced by several civilian strategists, notably Henry Kissinger. Kissinger's ideas were based on exploiting America's lead in atomic weaponry by devising a strategy based on limited nuclear warfare.[18] The Army seized upon the prospect of bringing itself back into the mainstream of strategic planning. As smaller nuclear devices were developed, Army planners wrestled with the intellectual problem of using tactical atomic weapons in North Atlantic Treaty Organisation (NATO) operations for the defence of Western Europe against larger Soviet forces. The concentration was on adapting the Army's conventional force structure to meet the demands of operating on a nuclear battlefield.[19] But a notion of limited war was not an easy task for an Army whose strategic tradition had been based on the doctrine of annihilation aimed at the destruction of the enemy in combat.

In an evolving doctrine of limited nuclear war, atomic firepower was justified in terms of the tactical tradition of the American way of war. It was argued, for instance, that the substitution of firepower for manpower had been a natural evolution in combat since the Civil War of the 1860s. In this context, some officers regarded tactical nuclear weapons not so much as revolutionary devices, but as artillery projectiles of unprecedented destructive power.[20] By the late 1950s, Army doctrine declared the atomic battlefield to be of paramount importance in ground operations with the conventional battlefield portrayed as subsidiary.[21]

By 1957, more than forty three per cent of the Army budget went into the procurement of low-yield battlefield atomic missiles and rockets at the expense of conventional developments in armoured and mechanised infantry forces. Weapons systems included the *Honest John* and *Little John* short-range divisional nuclear missiles and a battalion level missile, the *Davy Crockett*. [22] Doctrine for atomic warfare on land was based on using tactical nuclear weapons on a fluid or 'non-linear battlefield'. But fighting in cellular, rather than linear conditions, raised the problem of reconciling mass with dispersion. The Army sought to resolve this contradiction through deploying powerful nuclear-armed units using a mobile defence. In 1956, to meet the special demands of a European nuclear battlefield requiring both mass and dispersion, the Army reorganised its divisional structure. In order to integrate firepower with dispersion, the traditional battalion became a battle group of five companies for deployment in depth while the regimental/brigade level was eliminated.[23] Thus evolved the Pentomic division. In theory it was supposed to have a 'dual capability' for both atomic and non-atomic warfare; in practice it was designed primarily for the nuclear battlefield.

The transformation from a linear to a porous battlefield was extremely complex. Lacking an intermediate brigade or regimental echelon, the Pentomic organisation presented a divisional commander with acute command and control problems.[24] United States Army tactical operations became focused on highly centralised command and control procedures with nuclear firepower expected to blast holes in an enemy front through which exploitation forces would move. Simplistic faith in atomic firepower also reinforced the American penchant for attrition warfare at the expense of manoeuvre. As one senior officer, General Willard G. Wyman put it, 'tactical [nuclear] firepower alone can now accomplish the purpose of

maneuver'.^[25]

In retrospect, American Army nuclear doctrine was speculative, theoretical and unrelated to operational reality. In a simulated exercise in Louisiana during 1958, umpires ruled that, after recourse to some 70 tactical nuclear weapons, all life in that state had 'ceased to exist'. Another exercise in West Germany in the same year, in which 355 devices were used, claimed 4.2 million casualties.^[26] As T. N. Dupuy wrote in 1961, '[t]here is every reason to believe that our ground troops - the basic components of a limited [nuclear] war force - are not capable of existing, let alone operating in the very nuclear environment to which our strategy has consigned them'.^[27]

Rapid transition, from a conventional battlefield similar to that of the Second World War to the atomic battlefield, represented a dramatic transformation in doctrinal thinking. In the words of Robert A. Doughty, 'the Army probably has never experienced a more radical change during peacetime in its thought, doctrine and organisation'.^[28] There was an imbalance between the requirements of strategy, the state of technology and the ambitions of doctrine. Doctrine was far in advance of a technical understanding of tactical nuclear weapons and the Army was ill-equipped for the intellectual demands of what was a purely hypothetical form of warfare. By 1960 it was clear that the Soviet Union was developing a tactical nuclear capability, which would erode America's technological advantage and, make the use of such weapons a last resort.

The focus on atomic warfighting in the 1950s, in combination with later developments in low-intensity operations and airmobile warfare in Vietnam in the 1960s, proved costly distractions for the Army. They prevented the development of a coherent rationale for the use of conventional land forces in the nuclear age - a factor of increasing importance given the East-West nuclear stalemate. Until the late 1970s doctrine for conventional forces, especially in the armour and mechanised branches, remained in a 1950s mindset or even existed in a Second World War ethos. Finally, a reinforced belief in attrition warfare - based on superior technology and using defensive operations under the umbrella of tactical nuclear weapons - was a lasting influence from this era.^[29]

The 'Military Officer Manager': Doctrine and the Transformation of American Soldiering in the 1950s

In addition to the doctrinal changes forced by technology and national strategic policy, a transformation in the nature of American soldiering began during the 1950s. This transformation was fuelled by Army doctrine, especially nuclear warfare doctrine. The traditional Army focus on outright battlefield success and complete destruction of the enemy was tempered by nuclear deterrence and notions of limited war in the 1950s. These factors forced a change in the traditional indicators of military success. Beginning in Korea, combat effectiveness began to be measured in different terms from the experience of the Second World War and earlier conflicts. In the words of A.J. Bacevich:

Denied the chance to focus on victory as a final objective, commanders in the field sought other means of measuring operational efficiency... The Army in the field evinced a new interest in things that could be counted: friendly and enemy casualties, ammunition expended, patrols conducted, and outposts manned. Once the Army legitimised such measures of performance, command - particularly at the higher levels - evolved into a business of managing statistics to obtain a prescribed result.^[30]

A managerial style of soldiering became increasingly widespread in the Army during the 1950s because the emphasis on weapons technology produced an inclination to see soldiers 'less as warriors than as operators and technicians'.^[31] A 1954 presidential panel on defence personnel argued that the future belonged not to the warrior, but to a 'military officer-manager' schooled in 'the techniques of cost accounting, budgeting, and a variety of industrial management operations'.^[32] The focus on atomic warfighting doctrine encouraged the development of the military manager, an officer committed to futurism, technological innovation and bureaucratic procedures. A quip by Army chief of staff, General Maxwell D. Taylor, in July 1955 that every American soldier carried a field marshal's baton, 'not in his knapsack but in his briefcase,' summed up the changes taking place.^[33]

United States Army Doctrine During the Vietnam Era, 1961-73

In 1961 the new Kennedy Administration replaced massive retaliation with a strategy of options based around notions of flexible response and limited war theory. The Army was able to reclaim its conventional war role in a more interventionist strategic atmosphere where force was likely to be applied beneath the nuclear spectrum.[34] In addition, the rapid development of rotary wing aviation suggested a transformation in both battlefield mobility and firepower which the Army was eager to exploit. There was also a focus on a counter-insurgency role. But the Army lacked the strong doctrinal framework and organisational flexibility to absorb such rapid and simultaneous changes. In similar fashion to the 1950s, in the years between 1961 and 1965, the Army went through what Doughty has styled as 'virtual revolutions in tactical doctrine' - from atomic warfare back to conventional warfare and then into the new doctrinal domains of airmobility and counter-insurgency.[35] In the 1960s in the Vietnam War, accumulated doctrinal and organisational inadequacies from the 1950s merged with an inadequate intellectual understanding of insurgency and over-reliance on technology and management to produce a military debacle.

Doctrine, Airmobile Warfare and Counter-Insurgency

In the early 1960s the nuclear warfare Pentomic division was replaced by the more flexible Reorganisation Objectives Army Division (ROAD). Divisions returned to the traditional battalion and brigade organisation of the Korean War, a development which resurrected the Army's conventional warfighting role, its historic *raison d'être*. [36] But the real innovation of the 1960s was air cavalry. The development of rotary wing aviation, which began in the 1950s, was revolutionary in its implications and was compared to the impact of the internal combustion engine on warfare in the 1930s. As one writer has observed, airmobility was 'an intellectual advance equal to that of early tank proponents, for it was based upon the notion of a future war radically different from that which had just been fought'. [37]

Air cavalry loomed as a natural successor to airborne warfare - and was promoted as such by airborne veterans. It promised a doctrine of combat power through mobility and deep exploitation on the battlefield. The development of the doctrine of airmobility began with the concept of an airmobile assault division - a standard infantry division with organic helicopter capability - established in 1962. Such divisions were seen as transforming infantry mobility and increasing firepower in 'the higher scales of war' - the conventional-nuclear battlefield. It was believed that airmobile divisions would be employed by corps and army groups in concert with armoured formations. [38] The value of the helicopter was proven, but not in armour-intensive conventional operations in Europe as envisaged. In mid-1965, the First Cavalry (Airmobile) Division was deployed in Vietnam in infantry-intensive and tactical counter-insurgency operations.

The application of conventional notions of air cavalry to counter-insurgency fused high-technology equipment with a low-intensity unconventional warfare. Such a mixture required a carefully balanced and coherent doctrine. This did not occur because, in contrast to airmobility, the development of counter-insurgency warfare doctrine was viewed with disdain by many senior officers as a regressive form of warfare without strategic application. It was acceptable only insofar as it could be viewed as ancillary to conventional warfare and did not disturb force structure calculations. [39]

The Army was also handicapped in developing counter-insurgency doctrine by the legacy of the 1950s. There was little understanding of 'the mental redirection and re-education required of its officers and soldiers, most of whom had only been exposed to nuclear or conventional tactical doctrine'. [40] Doctrine was therefore developed in an incoherent and hasty manner with tactics often seen as extensions of small-unit warfare in conventional operations. Counter-insurgency was narrowed to purely military considerations of applied force, reducing the emphasis on the political, economic and psychological factors which were critical to its overall success. Notions of civic action and pacification became subsidiary to the conviction that an insurgency could be defeated by the application of powerful airmobile forces and firepower. [41]

Technology over Doctrine: The Army Experience in Vietnam

In the Vietnam War, many of the doctrinal weaknesses and organisational shortcomings accumulated by the United States Army since 1945 were cruelly exposed. An analysis of the war is outside the scope of this paper. But it is necessary to note a number of factors relevant to the process and development of doctrine. First, for the Army, Vietnam was a war of paradox. Although it was forced to fight the war in the complex framework of limited war strategy, the Army adhered to a blunt doctrine of applying unlimited force in the field. Second, while the bulk of the fighting was unconventional, there was a focus on employing conventional, airmobile large unit operations with only a marginal emphasis on a pacification effort. Third, frequent tactical success did not translate into lasting strategic advantage. In short, an American Army, trained for conventional-nuclear war in Europe, failed to adapt doctrinally and operationally to the need for the application of surgical military power based on precision and deft leadership.[42] The Army used an inappropriate 'strategy of tactics' seeking the annihilation of elusive enemy forces. Like the nuclear firepower doctrine of the 1950s, attrition by weight of conventional munitions, was seen in Vietnam in the 1960s as a part of the American way of war - a way whose success had been proven in the Civil War, the World Wars and in Korea.[43]

Finally, the managerial-technical approach to warfare which had begun developing in the American Army during the 1950s was also exacerbated in Vietnam. By the late 1960s, as strategy was dominated by tactics, so too was doctrine eclipsed by technology. In the field, there was a tendency towards a systems analysis approach in measuring ground operations. This involved processing a huge mass of data ranging from body-counts to weapons statistics - a flood of information that often lacked rigour and clarity in evaluation.[44] How to fight - the essence of doctrine - was replaced by an operational calculus using technology. Some critics have argued that the Army came close to disintegration in Vietnam.[45] This claim may be exaggerated, but there is little doubt that the Army underwent a deep professional crisis. Indiscriminate use of technology and firepower became metaphors for an apparent loss of military skill and leadership. 'The gross overuse of firepower', writes Edward N. Luttwak, 'was thus merely the most visible symptom of the inability of the American military institution to formulate a coherent strategy that would focus and control the means of war. No failure of military competence could be more complete'.[46]

The Doctrinal Revolution: United States Army Reform after Vietnam

In 1973 when American involvement in Vietnam ended, the Army had been badly damaged both in its institutional identity and pride of purpose. Against a background of strategic retrenchment involving withdrawal from South East Asia and the decision to create a Volunteer Army, United States military planning returned to a focus on alliance responsibilities, particularly with respect to NATO. In the early 1970s, the Army decided that it was likely to confront two types of war in the future - a high-technology mechanised war in Western Europe and a low-level infantry war elsewhere. Although the former was the least likely of the two potential conflicts, it was identified as the greatest threat to national security.[47] But as Army planners contemplated Europe as their prime area of future operations, they were confronted with the spectre of a Warsaw Pact led by the Soviet Union which, during the 1960s, had dramatically improved its conventional forces both in quality and quantity.[48]

The Army's renewed concentration on NATO also coincided with four other important and inter-related developments. First, there was a perception that the Soviet Union had attained nuclear parity with the United States which made the prospe

The Primacy of Doctrine: The United States Army and Military Innovation and Reform, 1945-1995

by Michael Evans, Research Historian, Directorate of Army Research and Analysis

Army Occasional Paper No 1 - August 1996

Abstract

It is only in recent years that the Australian Army has begun to consider the formulation of doctrine above the tactical level. This paper seeks to illustrate how doctrine is conceived of as a process and how, in developing operational concepts, there must be an interaction between doctrine, strategy and technology. To demonstrate this process, it uses the United States Army as a vehicle to examine the place of doctrine in the intellectual discourse surrounding military innovation and reform.

In the half-century between 1945 and 1995, the United States Army underwent a transformation from a force based on the primacy of mass and industrial power to a force based on the primacy of doctrine and technological precision. The paper argues that from the late 1940s until the mid-1970s, the United States Army approached the conduct of war using a strategy based on possessing superior numbers, materiel and firepower. This philosophy of warfare shaped doctrines for nuclear warfighting in Europe and for airmobility and counter-insurgency techniques which were employed in Vietnam.

The twin challenges of defeat in Vietnam and the growth of Soviet military power in Europe, led the Army to emphasise the primacy of doctrine in military reform and innovation. In the 1970s and 1980s, traditional ideas of industrial age warfare were replaced by notions of fighting at the operational level on an 'air-land' integrated battlefield in a new era of electronic warfare. Doctrine played a critical role in a transition towards a more innovative conception of warfare, the success of which was demonstrated in the 1990-91 Gulf War. The paper concludes by examining the place of doctrine in the development of the 1990s Force XXI Army as an information age force operating during a 'Revolution in Military Affairs'. It suggests that there has been a revolution in conventional warfare underway for the past two decades, which has been made up of a continuum of advances in which doctrine, technology and strategy have been intimately connected. One of the main challenges to the twenty-first century United States Army will be to ensure the continuing relevance and primacy of doctrine under rapidly changing strategic conditions.

The Author

Dr Michael Evans is a historian in the Directorate of Army Research and Analysis, Department of Defence, Canberra. He read history at the universities of Rhodesia and Western Australia and war studies at King's College, University of London where he was a Beit Fellow. He served with the Rhodesian and Zimbabwe armies and from 1981 to 1987 was Director of War Studies in the Zimbabwe National Army. He has held Visiting Fellowships at the University of Cape Town in South Africa and the University of York in England.

The Army Occasional Papers

The Army Occasional Papers serve as a vehicle for the promotion of articles that help develop strategic thought and leadership in the Australian Army. They are published on an irregular basis by the Directorate of Army Research and Analysis.

The views expressed in the Army Occasional Papers remain those of the authors. They should not be taken as representing any official policy of the Australian Army or the Department of Defence.

© Copyright Commonwealth of Australia 1996

This work is copyright. Apart from any fair dealing for the purpose of study, research, criticism or review, as permitted under the Copyright Act 1968, no part may be reproduced by any process without written permission. Inquiries should be directed to the Director of Army Research and Analysis, Russell Offices (K-1-44), Canberra ACT 2600.

ISSN 1327 - 7162

[Full Text](#)

[Full Text](#) | [Miscellaneous Papers](#) | [LWSC Home Page](#) | [Copyright Notice](#)

New Text Document.txt

30 January 1998

This paper was downloaded from the Internet.

Distribution Statement A: Approved for public release;
distribution is unlimited.

POC: United States Army
Date: 1 August 1996